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## Panorama Synergy Successfully Tests Hydrocarbon Detector Prototype

Panorama Synergy Limited [ASX: PSY] ("Panorama" or the "Company") announces that is has successfully built and tested the first prototype of its LumiMEMS™ Reader optical readout system for MEMS sensors.

Dr Matthew Myers from the Hydrocarbon Detection Team at CSIRO, confirmed that he witnessed positive results for detection of toluene using the cantilever based sensor.

Whilst the accuracy of the LumiMEMS<sup>TM</sup> Reader had previously been scientifically proven, the success of this prototype demonstrates the effectiveness and operation of the LumiMEMS<sup>TM</sup> Reader when exposed to the target substance being sensed.

The working parts of the LumiMEMS™ Reader, responded to the presence of gas-phase toluene.

As previously announced, Panorama selected toluene (or methylbenzene) as a proxy for benzene. Toluene is a benzene derivative, with the same characteristics but considerably less toxic. The laboratories at the University of Western Australia (UWA), where the testing took place, are also not currently licensed to handle benzene.

The successful detection of toluene unequivocally demonstrates the ability of the LumiMEMS™ Reader to detect benzene and other petro-hydrocarbons.

Terry Walsh, Managing Director of Panorama said:

"The success of this prototype demonstrates our ability to detect benzene and other dangerous hydrocarbons. Several months ago we predicted that we would reach this major milestone inside the 2014 calendar year. It is a testament to the research team at UWA and I congratulate them on keeping this project on schedule.

"The ability to detect the presence of benzene in the environment in much smaller quantities, and therefore much earlier than previously possible, places our technology squarely in the centre of very controversial debates concerning the inadvertent release of benzene into environments around oil and gas operations, particularly around a practice known as frac'ing.

"Benzene is highly toxic and carcinogenic. Environmental groups accuse frac'ing operators of the accidental release of benzene into populated areas, and critical water supplies, which the operators have strenuously denied.

"Our discussions with members of both parties have led us to the conclusion that what operators, environmental groups and regulators alike are seeking is a reliable test, which would potentially detect the presence of dangerous chemicals at the earliest possible opportunity. This would provide an element of certainty and objectivity into the debate.



"We understand that placing ourselves in the centre of this global issue will potentially subject us to additional scrutiny, scepticism and opinion. However, our Board of Directors unanimously believes that having the ability to provide this detection technology, carries with it the obligation to do so," said Mr Walsh.

## **About Panorama Synergy**

Panorama Synergy is a Perth-based technology company focused on the commercial and technological advancement of its optical readout system for MEMS, the LumiMEMS™ Reader.

This unique technology has been developed by the Microelectronics Research Group (MRG) team at UWA, in partnership with Panorama Synergy. MRG took the far sighted decision to be a global Centre of Excellence in MEMS over a decade ago, creating the opportunity for this breakthrough. UWA and Panorama Synergy have been partnering for much of this time.

Panorama Synergy's Board includes **Aidan Montague**, Chairman, whose background includes senior roles with Cisco Systems in Europe, South Africa and Asia; **Terry Walsh**, Managing Director, formerly MD for Cisco Australia and New Zealand, and then CEO of Cisco Canada; and **Dr Jason Chaffey**, formerly Managing Director of Bluechiip, a MEMS manufacturer based in Australia. Dr Chaffey's PhD was gained in the study of MEMS at RMIT.

Website: www.panoramasynergy.com.au

## **About MEMS**

Micro Electro Mechanical Systems (MEMS) are microscopic, highly sensitive systems able to detect and measure chemical and biologic substances, movement and acceleration, gravity and a wide range of other applications. They represent a \$14 billion to \$20 billion industry with significant growth rates. All devices which incorporate MEMS sensors require a readout system to assess and communicate the data that is measured. The LumiMEMS sensor is the next evolution of that readout system, as it takes MEMS readouts from primarily being electrically based, into the world of optical.

MEMS Flipboard: <a href="https://flipboard.com/section/mems-bQUuFm">https://flipboard.com/section/mems-bQUuFm</a>

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